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| APPLICATION NO.                | FILING DATE   | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.     | CONFIRMATION NO. |
|--------------------------------|---------------|----------------------|-------------------------|------------------|
| 10/024,215                     | 12/21/2001    | Ryoma Oami           | Q67860                  | 9094             |
| . 75                           | 90 05/22/2006 |                      | EXAM                    | INER             |
| SUGHRUE, MION, ZINN            |               |                      | VO, TUNG T              |                  |
| MACPEAK & S                    | SEAS, PLLC    |                      |                         |                  |
| 2100 Pennsylvania Avenue, N.W. |               | ART UNIT             | PAPER NUMBER            |                  |
| Washington, DC 20037-3213      |               |                      | 2621                    |                  |
|                                |               |                      | DATE MAILED, 05/22/2004 |                  |

Please find below and/or attached an Office communication concerning this application or proceeding.

|  | Application No.                            | Applicant(s)                        |  |  |  |  |
|--|--|-------------------------------------|--|--|--|--|
| Office Action Summary  | 10/024,215                                 | OAMI, RYOMA                         |  |  |  |  |
| Office Action Summary  | Examiner                                   | Art Unit                            |  |  |  |  |
|  | Tung Vo                                    | 2621                                |  |  |  |  |
| The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply   |  |                                     |  |  |  |  |
| A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b). |  |                                     |  |  |  |  |
| Status   |  |                                     |  |  |  |  |
| 1) Responsive to communication(s) filed on 08 M  | arch 2006.                                 |                                     |  |  |  |  |
| 2a)⊠ This action is FINAL. 2b)□ This action is non-final.  |  |                                     |  |  |  |  |
| 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is   |  |                                     |  |  |  |  |
| closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.  |  |                                     |  |  |  |  |
| Disposition of Claims  |  |                                     |  |  |  |  |
| 4)  Claim(s) 1-20,23 and 24 is/are pending in the a 4a) Of the above claim(s) 21 and 22 is/are with 5)  Claim(s) is/are allowed. 6)  Claim(s) 1-20,23 and 24 is/are rejected. 7)  Claim(s) is/are objected to. 8)  Claim(s) are subject to restriction and/o   | drawn from consideration.                  |                                     |  |  |  |  |
| Application Papers   |  |                                     |  |  |  |  |
| 9) The specification is objected to by the Examiner.  10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner.  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.  |  |                                     |  |  |  |  |
| Priority under 35 U.S.C. § 119   |  |                                     |  |  |  |  |
| 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  a) All b) Some * c) None of:  1. Certified copies of the priority documents have been received.  2. Certified copies of the priority documents have been received in Application No  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  * See the attached detailed Office action for a list of the certified copies not received.  |  |                                     |  |  |  |  |
| Attachment(s)  |  |                                     |  |  |  |  |
| 1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 4) Interview Summary<br>Paper No(s)/Mail D |                                     |  |  |  |  |
| 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date   |  | Patent Application (PTO-152)        |  |  |  |  |
| U.S. Patent and Trademark Office PTOL-326 (Rev. 7-05)  Office Ac   | etion Summary Pa                           | art of Paper No./Mail Date 20060515 |  |  |  |  |

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#### **DETAILED ACTION**

## Claim Rejections - 35 USC § 103

- 1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 2. Claims 1-20 and 23-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ryoo (US 5,990,957) in view of Sun (US 5,790,196) as set forth in the previous Office Action dated 12/08/2005.

#### Response to Arguments

1. Applicant's arguments filed 03/08/2006 have been fully considered but they are not persuasive.

The applicant argued that Sun fails to compensate for the deficiency in Ryoo with respect to calculating a total number of allocatable bits for multiple uncoded VOPs in a certain period of time, pages 1-9 of the remarks.

The examiner respectfully disagrees with the applicant. It is submitted that Sun teaches an area calculating means for calculating the area of the object in each VOP based on the shape information data (Note the specification of the invention describes that the size of object as area; in figure 1 of Sun suggests VO1 and VO2 within the VOP 1 and VOP2, respectively, wherein the size of VO1 or VO2 is obtained for bit calculation); and means for calculating an un-coded

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VOP allocatable bit number that is the total number of allocatable bits for multiple un-coded VOPs in multiple frames (fig. 1; Note Sun also suggests the encoder to encode a set of frames based on the total target bits frames) in a certain period of time as a span time based on allocatable bit number information indicating the total number of allocatable bits for the VOPs in the certain period of time and the number of generated bits for the encoded VOPs in the certain period of time (col. 8, lines 64-68, e.g. subtracting (difference) the actual number of header bits for all objects (VO1, VO2) in a previous frame is in between as the number of generated bits for the encoded VOPs (VOP1, VOP2); and the total number of target bits is available for those objects (VO1, VO2) in an instant frame (un-encoded frame or input video frame) and interpreted as the total number of allocatable bits for multiple un-encoded VOPs (VOP1, VOP2)).

Moreover, Ryoo teaches the total allocatable bits numbers for multiple uncoded VOPs within multiple frames (figs. 5A and 5B) in a certain period (col. 11, lines 45-col. 12, lines 9); and Sun suggests calculating the total of an un-encoded allocatable bits number corresponding to multiple uncoded VOPs within frames (fig. 1), and also for each VO and VOPs of the frame (T of TABLE 1, Note T is Total texture bit count (all VOs) T[i] Bit count for ith VO including texture, shape, motion and header bits T Total bit count including texture, shape, motion and header bits (all VOs), wherein the Vos are within multiple frames). With the suggested teaching of Ryoo and Sun, one skill in the art would combine Ryoo and Sun to make obvious the claimed invention.

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#### Conclusion

2. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

### **Contact Information**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tung Vo whose telephone number is 571-272-7340. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on 571-272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tung Vo

Primary Examiner Art Unit 2621